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Art. I.—ON THE HYDRATED PEROXIDE OF IRON AS AN ANTIDOTE FOR ARSENIC.

BY JOSEPH E. MUSE, M. D., OF CAMBRIDGE, MARYLAND.

To Professor Dunglison.

Cambridge, Md., March 1, 1838.

Dear Sir,—In your "General Therapeutics" the hydrated peroxide of iron is suggested as an antidote to arsenic acid, though it is marked by you as *questionable.*

Drs. Bunsen and Berthold, in 1834, reported it as a "*true specific.*"

In the last January number of "Bell's Medical Library," I was much gratified to read "Experiments on the Hydrated Peroxide of Iron, by Dr. Von Specs."

The fact being a very interesting one, I determined to satisfy myself, by a series of experiments, of the efficacy of the antidote; and I was, perhaps, the more inclined to be sceptic from having understood frequently, and from respectable sources, that arsenic would not kill a dog—and the experiments of Dr. Von Specs had been made with that animal.

For this purpose I prepared some hydrated peroxide of iron by a solution of the metal in nitro-muriatic acid, precipitated by an alkaline carbonate (I used carbonate of soda),—having dried the precipitate I obtained a beautiful specimen of "brown hematite," or hydrated peroxide of iron; I also borrowed of a kind neighbour a worthless dog, in full health, about two years old, and of ordinary size.

Being thus prepared with materials for the work of destruction and preservation at will, I determined, in the first place, to settle the question of the efficacy of the arsenic as a poison upon the animal economy of the dog; and secondly, when I should have finished the first dog, or the first question, to obtain the loan of another dog, and then to settle the second question, of the efficacy of the antidote to preserve him.

In my experiments it will be observed that I used the same quantities of arsenic reported to have been used by Dr. Von Specs, that I might have the more fair and appropriate results.

On Sunday afternoon, Feb. 18, 1838, at half past three o'clock, a scruple of the white oxide of arsenic was given, in minced meat, to the dog before described; at six o'clock the dog was not at all affected by it. The next morning, Monday, at nine o'clock, the dog, which was chained in a stall in my stable, appeared sickened, dull, and timid,—which two latter incidents I ascribed to his being a stranger both to the hostler, my assistant, and to myself, as well as to the fact of his being chained; and I name them because they were noticed by Dr. Von Specs, apparently, as pathological symptoms. His stall bore the evidence of emesis during the night, though

not copious; at five o'clock, P. M., he was quite well, and ate meat and became more friendly and lively.

On Tuesday, nine o'clock, A. M., the dog being perfectly well, I gave him one dram of the arsenic in minced meat; in the afternoon he was sickened and vomited as before.

On Wednesday morning, about nine, he was quite well and lively. I allowed him a small piece of meat, to test his appetite; he would have consumed a large mess, but I withheld it for further experiment, and I gave him at this visit one dram more of arsenic, mixed in mush and lard; he ate it freely. In the evening he had copious emesis; but neither in this nor in any of the previous cases had he any fluid alvine dejections.

On Thursday morning, about nine o'clock, the dog was *apparently* well, and I believe was so in *reality*, as he ate freely what was allowed him; which, as before, was limited for further experiment,—yet every day he had a little milk and some water.

On this day, Thursday morning, about ten o'clock, I offered him six drams of hydrated peroxide of iron in mush and lard, with a view to witness the effects of the supposed antidote upon him. He ate only about two thirds of it; in the afternoon his bowels were considerably affected.

On Friday morning, about ten o'clock, though a little reduced in flesh, he was quite well, and ate voraciously of meat and other food given him, except the mess of the antidote, which he would not again touch, though enveloped in a larger and richer medium.

On this day—late on Friday evening—I returned the dog to his owner, preserved, unequivocally, from the generally fatal effects of the arsenic, not by the *factitious antidote*, but by the *natural counter-poison* of his *peculiar constitution.*

On Tuesday, 27th, I called on his owner, and witnessed the unimpaired health of the dog.

The experiments of Dr. Specs were predicated, necessarily, and reasonably, upon the general truth of the poisonous effects of arsenic upon the animal economy.

From my experiments, above detailed, and whose results were widely different from my anticipations, and I may add, my wishes, it would seem that the family of the "dog" is an exception to this general truth, and that it is constitutionally capable of modifying or resisting the action of this general poison, without the aid of a *foreign* antidote; or it may *possibly* be true only with the *solitary subject* of my experiments, whose *individual* idiocracy may have preserved him, and it may not hold with the *family*, though this is not at all probable.

Should this family of the "dog" be found, upon further examination, to possess this modifying power, it would not be wholly anomalous; many analogous instances are to be found, among the vegetable poisons, of plants which are wholesome to one family of animals and destructive to others; the ground ivy, "Gaultheria procumbens," as our farmers universally believe, destroys their sheep, which will eat it only in the winter,—but it is wholesome and nutritive to our deer, and perhaps to others. The "atropa belladonna," it is confidently asserted, though I know not the fact, is consumed by the hog with avidity and safety: to animals in general it is notoriously poisonous. Bigelow, in his "Medical Botany," though I have not the work at hand and do not recollect them, adduces several similar instances.

I have only to repeat, that my experiment-dog was infallibly *arsenic-proof*, and without the aid of a foreign antidote; and though other individuals of that family may possibly give a different result, yet, without further experiment, the antidotal powers of the hydrated peroxide of iron against the poison of arsenic cannot be considered as established.

Art. VIII.—THE OTAPHONE.[1]

We observe by the continental journals that an instrument under this title was under trial in Berlin as a remedy for deafness. The individual who claims the invention of this contrivance it would seem is an American, who calls himself Professor Robinson, and who arrived in Berlin in the month of March last. Much attention appears to have been given by the savans of Berlin to the properties of the otaphone, and in a journal of the 17th of April appears a certificate by Dr. Graefe, recommending it to those who are affected with impaired sense of hearing. The instrument appears to be of very simple construction, and its operation to consist in raising the cartilage of the ear from the temple so as to increase the angle formed by these two parts to forty-five degrees. A writer in a Berlin medical journal now before us, Dr. Kramer, denies the utility of the otaphone, and undertakes to disprove the claims of Professor Robinson to the honour of its invention, which he asserts is truly due to Buchanan, of Hull, who, in 1828, recommended wearing a pad of cork between the ear and the head as a remedy for deafness. The plan was again brought forward by Webster, the author of a treatise on the structure of the ear, published in London in 1836, but who makes no allusion to Buchanan, "a violation of honesty," says Dr. Kramer, "which is only imitated by our friend Robinson, who transfers the invention of the instrument from London to America." Who this illustrious countryman of ours may be we are unable to conjecture!

E. G. D.

Art. III.—CASES OF GUN-SHOT WOUNDS, WITH REMARKS.

BY SAMUEL ANNAN, M. D., OF BALTIMORE.

The duties of the military surgeon have so seldom to be performed by those engaged in civil practice, that the occurrence of numerous instances of wounds inflicted by the implements of war, forms a kind of epoch in the history of one's life. During the short campaign of August, 1835, which terminated in the dispersion of the rioters, who, during several days and nights, had been actively employed in the work of destruction, the surgeons of this city were afforded an opportunity for becoming acquainted with gun-shot wounds. The number of killed and wounded has not been satisfactorily ascertained. The three following cases came under my care. The individuals were all spectators of the war, and were standing near together, about twelve o'clock at night, and received a portion of the last discharge of musketry made upon the retreating mob.

C. N., æt. 14, received a ball, flattened by previously striking some hard substance, in the foot. It perforated the skin a little behind the os cuboides, and passed along close to the bones, obliquely over the tarsus and metatarsus, and stopped at the distal extremity of the metatarsal bone of the index toe. It was easily extracted by an incision through the skin. Both wounds healed slowly, from his continuing to walk about.

W. W., æt. 16, was severely wounded on the penis and thigh. The penis must have been lying in the right groin, with the glans turned towards the right side. The bullet, which was also flattened in its course across the front of the body, struck the penis about the middle, tore off the skin, with a portion of the corpus cavernosum, down to the root of the organ; and also a considerable portion of the scrotum; the vas deferens and spermatic vessels barely escaping; and then passed into the thigh, which it crossed to the

[1] Wochenschrift für die gesammte Heilkunde, von Casper, 27 Mai, 1837.

outer side, stopping beneath the skin immediately in front of the trochanter major, from which it was removed by a small incision.

The wound of the scrotum was at least two and a half inches wide; and nearly one half of the root of the penis was uncovered. Two or three sutures brought the edges partially into contact, so as nearly to close the wound. There was not, however, any union by the first intention. A considerable slough came off from the corpus cavernosum; granulations sprung up; and by keeping the edges of the skin well drawn together by adhesive plaster, a very good cure was effected. The only evidence of the wound at present to be seen, is a narrow cicatrix along its course. The wound of the thigh threw off some superficial sloughs where the ball entered; there was but little inflammation, and in about six weeks the cicatrisation was completed.

J. L., ætatis about thirty, was shot in the right leg. The ball entered between the tibia and fibula, at the upper part of the middle third, making a wound as large as the palm of one's hand, tearing away the skin and lacerating the muscles; without, however, injuring either of the bones. It could not be discovered at the time, but can now be felt beneath the skin and fascia, two or three inches above the ankle joint, on the inner side. In this case there was a good deal of blood lost, but the hemorrhage was easily controlled by moderate pressure. Deep sloughs from the muscles between the tibia and fibula were coming away, and the wound was doing well under the use of emollient poultices, when, on the eleventh day, hemorrhage occurred from the anterior tibial artery, in considerable quantity. I proposed immediately tying the superficial femoral artery, at the usual place for securing it for popliteal aneurism, as the simplest and most effectual mode of controlling the bleeding; but Dr. Geddings, who was called in to see the case with me at this time, suggested the propriety of first trying pressure. Accordingly an apparatus was constructed of two pieces of shingle, sufficiently wide to extend beyond the thigh, both before and behind, around which a tourniquet was applied, the pad being over the course of the superficial femoral artery. By this means the front and back of the thigh were relieved from the pressure; and the chief force applied along the course of the artery. This restrained the hemorrhage; but the lower part of the limb became very much tumefied, and it was necessary to relax the pressure. The apparatus, however, was retained, that the tourniquet might be screwed up if the bleeding should return. The swelling of the leg did not entirely disappear during many days, and the pain of the foot and lower part of the leg was extremely severe. On the eighth or ninth day the hemorrhage reappeared, and recurred on the second day after, when we determined to secure the superficial femoral artery. I made the usual incision over the inner margin of the sartorius muscle, at the upper part of the thigh, and applied a buckskin ligature. From this time I had no farther trouble with the case; a small abscess formed, it is true, around the ligature, which for a day or two appeared very similar to a tumour filled with blood; but all uneasiness was removed by its bursting and discharging pus. The sloughs from the primary wound separated, leaving a deep cavity, which filled up with granulations, and in a little more than two months the wound was entirely cicatrised. He does not experience the slightest pain from the ball, and is therefore unwilling to have it removed.

Mr. Guthrie, in his "Treatise on Gun-Shot Wounds," says that "from the ideas usually attached to a contused wound it has been supposed that gun-shot wounds are not painful at the moment of infliction. This, as a general principle, is erroneous, although in many the pain is but trifling, whilst in others it is severe, and in some few rare instances the patient has been unconscious of the injury." In neither of the cases narrated above was pain experienced at the time the wound was received. The sensation was that of tingling and numbness; and at no subsequent period was the pain very severe.

The inflammation was not of a high grade. The parts suppurated kindly; and the sloughing was not deep. In the wound of the leg the sloughing did

not extend more than one third of the distance from the surface to the spot where the ball is lodged. This low grade of inflammation is somewhat remarkable, when we consider that the balls were flattened and jagged by striking either the sides of the brick houses or the street pavement, and must have produced considerable laceration in their passage through the skin and muscles. It can only be ascribed to the excellence of the constitution of all the wounded persons. There was no perceptible fever.

The old practice, recommended by Baron Percy, in his *Manuel du Chirurgien d'Armée*, Paris, 1792, of making scarifications and incisions, in order to change the contused into an incised wound, has very properly been abandoned. The patient suffered more from these incisions than from the first infliction of the injury; the consequent inflammation was rendered greater and the sloughing was not prevented. The object in view was not attained; and the sufferings of the patient were aggravated. The modern practice is, to avoid every source of irritation, and employ the mildest dressings. Emollient poultices, or compresses kept constantly wet with cold water, are preferred until the sloughs have separated; and the ulcers should then be dressed with simple cerate till they are healed. Any change in their condition from healthy to morbid action must be met by a corresponding change of treatment.

Proper incisions, however, have to be made for the purpose of removing balls and other foreign bodies. But it is not good practice to make these at a venture. If a bullet can be felt it should be cut upon and extracted, if this can be safely done. Leaden bullets, it is well known, may be suffered to remain in most situations with perfect impunity. A sac forms around them, which secures them, for the most part, in their position; and no unpleasant consequences ensue. Still many persons are desirous of having them removed; and Mr. Guthrie informs us, that he removed one from an officer which had been lodged deeply in the parietes of the abdomen; where it had been for several years. If we may judge from the history of a wound very similar to that of this officer, it was fortunate that he had the ball extracted. A gentleman was shot in the hip ten or eleven years ago, and the ball passed either over the crest of the ilium, or below the anterior superior spinous process, and lodged in the parietes of the abdomen. After recovering from the wound, his health continued good until some time in the summer or autumn of last year. Up to this time the ball could be felt; but as he experienced no inconvenience from it, and there was no apprehension of future danger, it was not thought necessary to subject him to the pain of an operation for its removal. The constant motion of the muscles of the abdomen, and the little resistance made internally, it would seem, at length caused it to pass inwards, until it came in contact with the small intestines, where it produced inflammation terminating in diarrhœa; which, after several months' suffering, carried him off. Examination after death revealed the true cause of the disease; which had not previously been suspected, if I have been correctly informed. This case proves that where leaden balls are lodged deep in the muscular parietes of the large cavities of the trunk, which are subjected to a great deal of motion, and the external resistance is greater than the internal, fatal consequences may ensue from their working inwards and coming in contact with the contained viscera; and that such cases are exceptions to the general law, and justify deep incisions for their removal.

It will have been perceived that an attempt was made to restrain the hemorrhage, in the third case, by moderate pressure, applied through an apparatus which did not embrace the entire circumference of the limb, but allowed of a continuance of the circulation, both in front and behind, and that considerable œdema and painful tension of the lower part of the limb were the consequences. The fatal objection to every such contrivance is, that while the artery is compressed, the vein, which lies close along side of it, and yields more readily to the compressing force, has its circulation interrupted in a greater degree than that of the artery, whose coats are thick, and its diameter preserved by the direct force of the heart. Now it is

obvious, that if we interrupt the current in the vein in a greater degree than we do that in the artery, we are doing positive mischief. The anastomosis between the veins is not of that character to admit of a circuitous circulation, as in the case of the artery; and if the flow of the blood through the main venous trunk of a limb is arrested, the most disastrous results are to be apprehended.

In the fourteenth volume of the Medico-Chirurgical Review, a case of wound of the femoral artery and vein is recorded, which came into St. George's Hospital, London, and was managed by Mr. Keate, one of the surgeons of that institution. He applied a ligature above and below the wounds, to both the artery and the vein. Mortification of the limb followed, and the man died on the fourth day after the operation. The chief danger apprehended by the surgeon from the application of the ligature to the vein was inflammation—phlebitis. He appears to have had no dread of failure of the circulation. Now as it is well known to anatomists that the veins which return the blood of the fibular posterior and anterior tibial arteries unite to form the popliteal vein, into which the saphena minor generally enters; as we have no evidence that these veins have that kind of communication with the superficial veins which will enable them to send their blood into the saphena major, and thus into the femoral vein, high up in the thigh; and as we have no reason to believe that the veins around the knee-joint anastomose as the arteries do—indeed their valves would effectually prevent a retrograde circulation—we imagine the great danger to the above patient arose from the impossibility of the blood sent down by the profunda femoris into the articular arteries finding a passage back; and as an inevitable consequence in all such cases, the leg must mortify. Another case is reported, in which Dr. Smith, of Haslar, put a ligature upon the artery, and restrained the bleeding from the vein by compress and bandage, and the patient recovered.

Mr. Guthrie gives us the case of "an officer who was wounded by a musket-ball on the fore part of the right thigh, which made its exit through the left nates. It wounded the great femoral vein and passed upwards and inwards into the perinæum in front of the urethra, without injuring it. This gentleman, after some time, perfectly recovered, but all the superficial veins of the wounded thigh have greatly enlarged, almost appearing varicose, and communicate with the superficial veins of the abdomen, which are also of increased dimensions, forming a beautiful venous anastomosis, that is very remarkable when compared with the other side."

Admitting the femoral vein to have been wounded, although Mr. Guthrie does not inform us how he discovered this to be the fact, nor whether the wound was large or small, transverse or oblique,—whether the vein was cut entirely through and separated, or slightly opened on one side,—it is, we think, apparent, that the wound was above the entrance of the saphena major, and that the enlargement of the superficial veins arose from an obstruction to the free passage of the blood out of that vessel; not to the return of the whole or great part of the blood of the limb through the vessels of the surface. The veins of the abdomen, which pass downwards to enter the femoral vein, must have been enlarged from the same obstruction; inasmuch as it is impossible the branches of the saphena major could take on a retrograde circulation, and send up the blood upon the surface of the abdomen from the superior part of the thigh. The effect of such a course of the blood in the veins would be to send it back into the capillary arteries, from which the veins take their origin, to seek another route through their free anastomoses; which is plainly impossible. We believe, therefore, that in the above case the femoral vein was only contracted in its diameter; not entirely obliterated.

Alarming symptoms have not unfrequently been observed, sometimes with a fatal termination, when no external injury was perceptible. In these cases the ball has been regarded as only the indirect cause of the unfortunate results; and the commotion produced in the air by the rapidity of the

bullet's motion through it has been deemed the direct agent; and such injuries have been called "wind-contusions." Mr. S. Cooper, in his "First Lines," considers this explanation as too absurd to need a serious refutation; and gives it as his opinion, that the ball causes a violent contusion, but does not enter the body nor wound the skin, in consequence of the sloping direction in which it first strikes the surface, from which it is reflected.

It is easy to conceive of the infinitesimal particles of light or heat being reflected from appropriate surfaces; but to talk of the reflection of bodies having the magnitude and moving with the momentum of bullets, unless by some substance possessing more solidity and capacity of resistance than the surface of the human body, is rather ludicrous. Perhaps we can account for these remarkable occurrences by taking into consideration the elasticity of the parts against which the ball impinges. When a bullet strikes the abdomen or thorax with a force not quite sufficient to penetrate, the elasticity of the parietes of those cavities will cause it to rebound; and while great injury may be done to the parts within, which are driven against the spine, or some other unyielding substance, the skin and muscles may entirely escape.

The following we suppose to be an analogous case. A gentleman about to mount his horse was struck on the right side of the hypogastric region by the hind foot of the animal thrown forwards and outwards to dislodge the flies. Severe pain and sickness of the stomach immediately followed, with paleness and tendency to syncope. When I saw him, an hour or more afterwards, there was not the slightest appearance of injury on the surface of the abdomen; but he complained of great pain, increased on pressure, and evidently referable to the contained viscera. The face was pale, and the countenance extremely anxious; pulse very small and frequent. He was bled, a blister applied, emollient enemata administered, and such further treatment adopted as the symptoms appeared to require. Death, however, took place sixteen hours after the reception of the injury. On examination the skin and muscles gave no evidence of having been struck, but there was a laceration of the ileum. An opening was made into this intestine about one third of an inch in diameter, through which the contents of the bowels had passed into the cavity of the peritoneum and produced intense inflammation, extending over nearly the whole of the viscera.

Neither the commotion of the air, nor the obliquity of the angle of incidence will here explain the absence of contusion of the external parts. Their elasticity affords a more rational solution of the problem.

Art. III.—ANIMAL MAGNETISM.

Washington City, D. C., Feb. 17th, 1838.

Sir,—In one of the late numbers of the "Medical Intelligencer" I have read a report of a committee of the Royal Academy of Medicine on the subject of animal magnetism. I have been informed, from good authority, that this report was *not* drawn up by a committee of the said academy; that one of the signers of that report has been dead for some years; that most of the individuals who are said to have signed the report do believe and now use animal magnetism; and finally, that the report is entirely a forgery, written for one of the English medical journals. Not having the French medical journals to find out whether such a committee have ever been appointed—whether they have ever made such a report—you would confer a favour on many who have been induced to believe that report to be a "hoax," if you could inform the public of its authenticity. Yours,

A Subscriber and Attentive Reader.

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It is sufficient to say, in reply to our correspondent, that most, if not all,

the allegations contained in the preceding letter are devoid of foundation. We have at this time before us a copy of the original "*Rapport sur le Magnétisme*, par une Commission composée de MM. Bouillaud, H. Cloquet, Caventou, Cornac, Emery, Oudet, Pelletier, Roux, et Dubois (d'Amiens), rapporteur."

The authenticity of the report is questioned by those only who are unwilling to receive its—to them—unpalatable truths.—*Ed.*

Art. IV.—LIGATURE OF THE PRIMARY ILIAC ARTERY, NEAR THE BIFURCATION OF THE AORTA.

PERFORMED WITH SUCCESS BY PROFESSOR SALOMON, OF ST. PETERSBURG.[1]

Ligature of the primary iliac for aneurism of the external iliac artery, has, as far as we know, been performed three times. The first operation was successful in the hands of Dr. Valentine Mott, of New York; the second was performed by Mr. Crampton, of Dublin, but the patient died of hemorrhage on the eighth day. In the third case, Mr. Guthrie tied the common iliac, for supposed aneurism, which, after the patient's death, turned out to have been fungus hæmatodes. We are happy in being able to communicate a second successful example of this formidable operation, which was recently performed at St. Petersburg, by M. Salomon.

Luc Padurbusr, thirty-eight years of age, of good constitution, had received, six months before his entrance into the hospital, a kick from a horse in the left groin; shortly after the injury a tumour appeared in the inguinal region, and increased so rapidly as to impede progression, within a short period of its appearance. The patient was transferred to a clinical ward on the 24th of May, 1837, and on examination the following particulars were noted:—Voluminous tumour, occupying the left inguinal region, not well defined; it extends four finger-breadths below Poupart's ligament, and as many above it; externally it reaches the anterior superior spine of the ileum, and internally it touches the linea alba and pubis. The pulsations of the tumour are very perceptible to the eye and touch; they are strongest at about two inches above the ligament; here the skin is very much distended and thin; the stethoscope detects a bellows-sound. The tumour can be traced into the abdominal cavity, along the line of the external iliac artery, as far as its origin; on compressing the abdominal aorta the tumour becomes smaller, and its pulsations cease. The patient keeps the thigh flexed; the least attempt at extension causes severe pain, which shoots along the external side of the thigh to the ham and leg. Pulse quick and full. The nature of the disease, and the necessity of an operation being manifest, the latter was performed on the 26th of May, in the following manner:—

An incision, four and a half inches long, was made, on the left side of the abdomen, extending from the anterior superior spine of the ileum, to within an inch of the last false rib. The incision was commenced at an inch on the inner side of the spinous process, and ran in a parallel direction with the inferior (*internal*) epigastric artery. The superficial fascia and the fleshy fibres of the abdominal muscles were next divided in the same direction, and Cooper's fascia brought into view. A small opening having been made into this fascia, it was divided for some extent, at a lower part of the wound. The peritoneum now lay bare, and was carefully separated, with the finger, from the fascia covering the iliacus muscle, and then from the psoas muscle. An assistant now fixed the peritoneum and intestines, by pressing them with the index finger against the upper part of the wound,

[1] London Lancet, Feb. 10, 1838, p. 709.

and this done, the operator continued to separate the peritoneum, until he arrived at the common iliac artery: the pulsations of the vessel, which appeared to be healthy, were distinctly felt under the finger. Having ascertained, with precision, the exact direction of the artery by means of the touch (for it was impossible to *see* it in the bottom of the wound), the operator now separated the iliac vein from the artery with the left index finger, and then succeeded in passing an aneurismal needle along the same finger, under the artery. The vessel was completely isolated from surrounding parts, with the aid of the needle, and then by means of Deschamps' elastic needle, a ligature was passed round it, from the inner to the outer side. The ends of the ligature were tightened with the common double knot, and brought out at the nearest part of the wound. This step of the operation was not attended with any difficulty. On tying the knot pulsation ceased in the tumour, and it rapidly diminished in volume. The edges of the wound were brought together by strips of adhesive plaster; some pledgets of lint were placed along it, and the whole supported by a common bandage. The patient lost very little blood during the operation, as none of the vessels divided required a ligature.

On the evening of the 26th the pulse was quick and full, but the patient expressed himself much relieved. Fourteen ounces of blood were taken from the arm, and fifteen drops of laurel-water administered every three hours. Lemonade for drink; draught containing cream of tartar at night.

27th. Pulse quick; no stool. An evacuation was produced by the administration of some castor oil. The lower extremity, which was at first cold, is now warm. The patient now complains of pain in the inner side of the knee, which is swollen, hot, and red; ten leeches to the affected part; warm fomentations.

29th. The inflammation of the knee has diminished; the skin here is much cooler than on the 27th; a superficial gangrenous eschar has formed over the fifth metatarsal bone. Some lint, moistened with spirits of turpentine and camphorated spirit of wine, was immediately applied to this point. The general condition of the patient is favourable; he has slept several hours; pulse less quick.

30th. The patient has slept tranquilly during the night, and feels himself strong; pulse soft, eighty; skin cool; tongue clean; stools natural; the left lower extremity is warm; the aneurismal tumour has considerably diminished in size. On removing the dressings the wound presents a favourable aspect; the greater portion of it is united by the first intention; a small portion near the ligature furnishes pus, which is of good condition. As the swelling at the knee had again become painful, twelve leeches were applied.

31st. Has passed a quiet night; the knee less painful; the eschar on the foot is limited, but a similar eschar has formed over the skin covering the patella, which is inflamed. Suppuration of the wound continues slight.

June 2d. Tumefaction of the knee is more painful; twelve leeches applied, which removed it altogether. Another small superficial eschar occupies the external part of the sole of the foot. The general condition of the patient, and that of the wound, are most satisfactory.

From this period the patient continued to improve, and near the end of June the tumour had subsided to one quarter of its original volume, being converted into a hard solid mass. The temperature and sensibility of the limb were normal, except at the toes and sole of the foot, which still remained numbed. The whole of the gangrenous spots are healed. On the thirty-second day after the operation the ligature came away, and the wound then quickly healed in its whole extent. At the expiration of two months the patient was completely cured.

The principal difficulty which the operator has to overcome in taking up the primary iliac, depends on the depth at which the vessel is situate in the cavity of the abdomen. M. Salomon considers the incision, which he made parallel to the epigastric artery, as the most eligible one, inasmuch as it permits the surgeon to get at the vessel easily, without separating too much

of the peritoneum. Dr. Valentine Mott made a semilunar incision, similar to the one which Sir A. Cooper recommends for ligature of the external iliac. Other surgeons advise us to make the incision along the spine of the ileum, but this method renders it very difficult to pass a needle round the artery, and compels the operator to separate the peritoneum to a great extent.—*French Gazette*, No. 52, 1837.

BIBLIOGRAPHICAL NOTICES.

Blakiston on the Influenza.[1]

This is esteemed one of the best essays that has been published on the "grippe," and had it appeared earlier, when anxiety was felt lest the malady should visit this hemisphere, we should have reprinted it.

As all danger is now over, we shall merely notice the book, in case that some of our readers may hereafter have to refer to a good record of the epidemic of 1837.

The author considers that "the following conclusions seem to result" from his investigation:—

"1. The influenza, as observed at Birmingham, is an affection of the nervous system, with its concomitant derangement in the organs of digestion, circulation, &c., commonly known under the name *nervous fever;* accompanied, *throughout its whole course*, by irritation of the pulmonary mucous membrane.

"2. This irritation, not unfrequently, amounted to congestion, and even to inflammation.

"3. The influenza was modified by pre-existing disease, more particularly by chronic bronchitis, the subjects of which were rendered liable to the acute form of that disease.

"4. Neither locality, previous habits, or diet, acted as predisposing causes.

"5. In simple, uncomplicated cases, mild treatment alone was sufficient.

"6. When bronchitis was present, counter-irritation, and large doses of ethereal tincture of lobelia, repeated at short intervals, seemed useful.

"7. Venesection was always counter-indicated.

"8. It was often necessary to have recourse to diffusible stimulants at the commencement of the complaint, and to administer tonic medicines in an early stage of it.

"9. It only proved fatal in those cases where the persons it attacked had been enfeebled by old age or chronic disease."—p. 60.

Woodward's Report of the Lunatic Hospital at Worcester, Mass.[2]

We call this the report of Dr. Woodward, inasmuch as almost all of it proceeds from him. It is characterised by the same sound sense and excellent observation which we had to commend some months ago.[3]

The report contains, amongst other matters, tables showing the compara-

[1] A Treatise on the Influenza of 1837, containing an analysis of one hundred cases, observed at Birmingham, between the first of January and the fifteenth of February. By Peyton Blakiston, M. A., Med. Lic. Cantab., Physician to the Birmingham Dispensary and to the Magdalen Asylum, &c., with a motto. 8vo, pp. 60. London, 1837.

[2] Fifth Annual Report of the Trustees of the State Lunatic Hospital at Worcester, Dec., 1837. 8vo, pp. 71.

[3] Intelligencer, vol. i., p. 306.

tive curability of insanity attacking at different ages; of the comparative curability of cases treated at different periods of insanity; of the causes of insanity; of the relation between the paroxysms and state of the moon; of the classification of cases; and of the relation between cause and recovery.

The remarks appended to those tables by Dr. Woodward are judicious and appropriate.

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Wolff on Auscultation and Percussion.[1]

The anxiety of those of our readers who are alive to every production relating to these interesting subjects might lead them to desire to possess the work before us. We think it well, therefore, to caution them. We find nothing in it which has not been better told elsewhere, unless it be perhaps a letter from Sir Anthony Carlisle—to whom the volume is dedicated—containing what Dr. Wolff calls, "some valuable observations of my friend, Sir Anthony Carlisle, illustrative of his views of the subject of acoustics."

To us the "observations" seem to possess no value whatever; but rather to belong to that figure of speech—if it may be so called—to which the moderns have applied the term "twaddle."

Curious Case of a Sixth Dentition. By M. Lison, M. D.[2]—Nature follows in the majority of cases a uniform and regular progress in the work of dentition. It is not rare, however, to see her wander from her route without any serious inconveniences to the child.

Thus, although the appearance of the first teeth does not commence till near the sixth month after birth, children are known sometimes to be born with some incisors; others, on the contrary, do not begin to cut the same teeth till the end of one, two, or three years, and even later. But at a more advanced age all becomes regular, and those who presented a tardy dentition are equally advanced with those whose dentition had been premature.

Some incisors present also many anomalies with respect to the number of the teeth both in the first and second dentition. I shall not enlarge on this subject, of which a large volume might be made. Besides, authors have published a great many curious cases, which may be easily consulted.[3] Individuals are mentioned who have had a double row of upper and lower teeth, and even a still greater number. Others have had much fewer than are commonly allowed us by nature, whilst some have not had any during their whole life.

Teeth also present great irregularities in their position, their implantation. Some, and especially the last molars, called the wisdom teeth, do not always issue from the alveoli, and remain buried during life in the maxillary bones. These same teeth may also be often planted in many different and anormal manners, for example, the root uppermost and the crown in the opposite direction.

These small bones have been seen but very seldom, it is true, to occupy sites for which they are not destined. They have been met with in the palatine arch, in the cheek bone, the maxillary sinuses, the orbit, the stomach, the womb, and in the ovaries.

[1] On the Use of Auscultation and Percussion in the Diagnosis of Diseases of the Organs of Respiration and Circulation, with directions for the employment of inspection, succussion, palpation, and mensuration of the thorax. By Julius Wolff, M. D., Member of the Royal Colleges of Göttingen, Heidelberg, &c. 8vo, pp. 200. London, 1837.

[2] Bulletin Générale de Thérapeutique, No. 18, Sept. 30, 1837.

[3] Vide the thesis of M. Blandin, of the Hôtel-Dieu, presented to the *concours* for a chair of anatomy. Paris, 1836. It is a rapid and luminous epitome of all that has been written and discovered on the teeth up to this day.

Persons unacquainted with medicine do not know that children undergo two dentitions. The first, beginning shortly after birth, furnishes twenty teeth, called deciduous, temporary, infantile, or milk teeth; and the second, ordinarily commencing at the seventh year, not only furnishes twenty teeth which replace the deciduous, but gives also twelve others, of which four, the last molars, called wisdom teeth, do not issue till about the twentieth year, sooner or later: this completes the number of thirty-two teeth allotted to the human species. To this the work of nature is commonly limited.

Authors, however, mention individuals of all ages in whom teeth fallen out or extracted have been pushed out a third and even a fourth time; but these dentitions are almost always incomplete; it is an isolated renewal of some teeth more hurtful than useful to old persons. We find, also, but doubtless much more rarely, cases of a third[1] and even a fourth[2] entire dentition; that is to say, in which all the teeth of the series have been complete.

I have at present under my observation, in the country, where I reside, a child nearly thirteen years of age, whom I have seen brought up since her birth, and who is now commencing a sixth dentition. This case, without being very instructive, I thought ought to be published, because I believe it unique in science, and that it possesses every desirable authenticity.

Eugenia Cavillon, now in the middle of her thirteenth year, born of young and healthy parents, healthy and of good constitution, had reached her ninth year without accident, and about this period finished her second dentition. Soon after several of her teeth became loose and were replaced by new teeth; the twenty-eight teeth were renewed in a short space of time. At ten or eleven years the same phenomena recurred a second time. From the eleventh to the twelfth year the same shedding of all the teeth occurred, and the same replacing by new teeth; and now that the child has attained her thirteenth year a sixth dentition has commenced; the first large right inferior molar tooth has been pushed out by a similar one already quite visible.

The teeth shed have no root; they are worn, corroded, and destroyed. The loss of one set and the appearance of the other take place in the ordinary manner. The child is in good health and experiences no derangement. The gums, the seat of a constant process, are slightly red and swollen. The teeth are small, white, and regularly set.

I look upon this example of sixth dentition as the only one which has been published: and can we rationally affirm now that other dentitions may not succeed in this young child?

Union of the Gums and Cheek cured by Operation.—Casper's journal,[3] of May last, contains a case of this sort produced in a child of three years by excessive salivation. Nine years elapsed before any attempt was made to effect a cure. On examination the teeth could only be so far separated as to admit the handle of a teaspoon between the two jaws. The attachment on each side was formed by a sort of ligamentary mass, which, commencing at the first molar tooth, extended about an inch back into the mouth, and had about the same dimension in height. This broad cicatrix had entirely prevented the separation of the teeth and consequently the mastication of the food, so that the patient had been wholly debarred the use of any solid aliment. The operation consisted in first separating the cicatrix from the gum, on each side, and some days after removing a portion of each cicatrix and cauterising the wounds. The success was complete, the power of masticating solids being entirely restored.

[1] Fauchart, in his work entitled "Le Chirurgien-Dentiste."
[2] Eustachius.
[3] Wochenschrift für die gesammte Heilkunde. Mai 27, 1837.

Atrophy of the Heart.—Professor Albers, of Bonn, reports a case of this disease,[1] in which post-mortem examination gave the following result. *Chest.*—The heart was small, flaccid, and of a dark red, or reddish-brown hue. The whole organ, after removing the large bloodvessels, weighed two and a half ounces. The wall of the left ventricle measured two lines, of the right about one. The cavities were empty; the muscular substance soft; the columnæ carneæ in the left ventricle so thin that the thickest did not exceed one quarter of a line. This total atrophy of the heart is a rare occurrence.

Uniformity of Surgical Diseases.[2]—The following is a tabular view of the number of men rejected by recruiting surgeons in France during the three successive years 1831, 1832, 1833. The remarkable fact developed is the uniformity of the proportions even in regard to those accidents which, by their nature, would seem to be most uncertain in their occurrence.

Loss of fingers, 752, 647, 743; do. of toes, 1304, 1243, 1392; do. of other limbs, 1605, 1530, 1580; deaf-mutes, 830, 736, 725; wens, 1125, 1231, 1298; limp, 949, 912, 1049; other deformities, 8000, 7630, 8394; diseased bones, 782, 617, 667; near-sight, 948, 891, 920; diseases of eye, 1726, 1714, 1839; itch, 11, 10, 10; scald, 749, 800, 794; tinea, 57, 19, 29; other skin diseases, 937, 983, 895; scrofula, 1730, 1539, 1272; chest diseases, 561, 423, 859; rupture, 4044, 3579, 4222; epilepsy, 463, 367, 342; other diseases, 9168, 9058, 10,286; debility, 11,783, 9979, 11,259; under size, 15,935, 14,962, 15,078.

Poisoning with Morphine.—A Berlin journal[3] contains an account of some very severe symptoms produced in an old lady of sixty-three by the endermic application of morphia. The article was applied to the two sides of the cervical vertebræ, the surface having been denuded of the cuticle by blistering. The first applications were followed by a marked relief of the local spasmodic affection on account of which they were made. The experiment was several times repeated with the same happy result, the quantity of morphine strewed over the blistered surface amounting to half a grain. On the occasion referred to, however, the patient had persuaded her attendant to increase the amount very considerably, in the hope that by so doing she should realise a more durable benefit. The effects which ensued in the course of about two hours, were convulsive agitations over the whole surface of the body, cold sweat, dyspnœa, insupportable anxiety, and threatened suffocation. By administering strong coffee, by frictions, enemas, &c., relief was procured, and the recovery of the patient, though slow, was complete.

Ileus, cured by Endermic Treatment.[4]—In a case of ileus, occurring in the second month of pregnancy, and which had gone on to the sixth day, Dr. Susewind, of Lützerath, ordered a mixture of nine drops of croton oil with half an ounce of almond oil, to be rubbed over the abdomen, one third part at a time, at intervals of six hours. The third inunction brought away abundant offensive evacuations, and relieved the patient.

Novel Operation.—A case is reported in a recent German journal[5] in which spasms of the sterno-mastoid muscle, of long standing, were finally relieved by the successive division first of the sternal and secondly of the clavicular portion of this muscle by the knife.

[1] Wochenschrift für die gesammte Heilkunde. Dec. 17, 1836.
[2] Ibid. [3] Ibid, Jun. 24, 1837. [4] Ibid, Jun. 24, 1837. [5] Ibid, Aug. 12, 1837.

A Ball remaining in the Head Eighteen Years.[1]—A cavalry officer was wounded, in 1813, at the battle of Kulm, severely on the forehead. His life was some time despaired of, but he at length recovered, though with a marked depression at the part of the forehead injured. A sense of pressure within the head was the principal distinct symptom complained of; but the patient insisted, contrary to the opinion of his medical friends, that the ball remained within the skull. On examination after death, which took place eighteen years after the injury, the ball was found above the orbital part of the os frontis on the right side. It was necessary in extracting it to employ much force, and to remove with it a piece of the os frontis.

Louisville Medical Institute.—At a public commencement held on Friday the 2d of March, 1838, the degree of Doctor of Medicine was conferred on the following gentlemen:—

James Seanderson Athon, of Indiana, on Sanguinaria Canadensis.
John Barry, of Indiana, on Rheumatism.
James M. Bemiss, of Kentucky, on Blood-letting.
Joseph M. Brooks, of Kentucky, on Creosote
Patrick H. Cochran, of Kentucky, on Dysentery.
Lemuel N. M. Cook, of Tennessee, a Review of the Lectures of Prof. Cooke.
Stephen Cooke, of Kentucky, on Digestion.
Samuel C. Cowan, of Alabama, on Phlegmasia Dolens.
William Forrester, of Kentucky, on the Fevers of Jefferson county, Kentucky.
Willis Wallace Goodwin, of Indiana, on Intermittent Fever.
Orville R. Grant, of Kentucky, on the Modus Operandi of Medicines.
John E. Jackson, of Mississippi, on Malignant Congestive Fever.
William Johnston, of Kentucky, on Gonorrhœa.
William Kellar, of Illinois, on Fever.
William C. Kindel, of Mississippi, on the Use of Sinapisms in Fever.
John M. Leech, of Illinois, on Emetics,
Thomas Johnston Montgomery, of Kentucky, on Metritis.
Henry Murray, of Ohio, on the Importance of a Practical Knowledge of Anatomy.
John E. Park, of Georgia, on Puerperal Fever.
Jesse H. Rodman, of Kentucky, on the Function of the Spleen.
John S. Seaton, of Kentucky, on Dysentery.
William K. Sloane, of Kentucky, on Dysentery.
Henry M. Wakefield, of Kentucky, on Emetics.
Richard C. Wyatt, of Tennessee, on Generation.

The honorary degree of M. D. was conferred upon the following gentlemen, viz.:—Samuel C. McWhirter, of Wilson county, Tennessee, and John M. Talbot, of Louisville, Kentucky.

L. P. Yandell, M. D., Dean, &c.

Medical Department of the Cincinnati College.—The catalogue of this institution exhibits that there were one hundred and twenty-five students in attendance during the last session, of whom fifty-seven were from Ohio; fourteen from Kentucky; five from Tennessee; three from Pennsylvania; four from Mississippi; one from Missouri; one from North Carolina; eighteen from Alabama; nine from Indiana; six from Virginia; four from Illinois; two from New England: and one from New York.

At the public commencement, on the 3d of March, 1838, the degree of Doctor of Medicine was conferred on the following alumni:—

Ohio.—Abel Carey, Erastus S. Close, Edwin H. Davis, Eli Dayton, John Evans, Elias Garst, John B. Jewett, Edward Kimball, Joseph Redhead, John A. Young.

Alabama.—William J. P. Haughton, Jonathan Macdonald, John McNeill, John C. Spotswood.

Kentucky.—John S. Alexander, John H. Grant, William Peyton.

Illinois.—Francis W. Todd, Wilkins Watson, Anson G. Henry.

Indiana.—Tibia Casterline, Thomas W. Colescott.

Mississippi.—Alexander H. Petet.

[1] Zedler, in Wochenschrift für die gesammte Heilkunde, Aug. 12, 1837.

New Work on New Remedies.—The editor of this Journal has nearly ready for the press a work on the remedies of modern introduction; their physical and chemical properties; the methods for preparing them; their effects on the healthy and diseased organism; and their therapeutical application, with appropriate prescriptions.

Medical College of the State of South Carolina.—The annual catalogue of this institution exhibits it to be in a flourishing condiition. The number of students during the last session was one hundred and forty-one, of whom one hundred and two were from South Carolina; sixteen from Georgia; ten from Alabama; six from North Carolina; two from Florida; one from Mississippi; one from Tennessee; one from Virginia; one from Massachusetts; and one from Maine.

Transylvania Medical School.—We find we were in error in stating, that the lectures, which the late Professor Eberle was unable to deliver, were undertaken by Professors Dudley and Cross.[1] We learn that the office was supplied by Professors Mitchell, Short, and Cross.

Case of a Female with four Mammæ and Nipples. By Robt. Lee, M. D., F. R. S., Physician to the British Lying-in Hospital, and Lecturer on Midwifery at St. George's Hospital.

The individual in whom the above-mentioned peculiarity presented itself was thirty-five years of age, and was prematurely delivered of a still-born child on the 20th of July, 1835. The mammæ having afterwards become excessively painful and distended, she was compelled to permit the author to make an examination of them, by which it was discovered that she had two mammæ and two nipples on each side. The inferior or pectoral mammæ were fully developed, and in the natural situation, and their nipples, areolæ, and glands, presented nothing unusual in their appearance. Near the anterior margins of the axilla, a little higher up on each side, was situated another mamma, about one sixth the size of the others. The nipples of these were small and flat, but when gently pressed, a milky fluid flowed copiously from several ducts which opened upon their extremities. When milk was drawn from the lower breasts, a small quantity usually escaped from the nipples of the upper, and when the draught came into the former, the latter invariably became hard and distended. From the flatness of the nipples of the upper breasts, the patient had never been able to suckle with them.[2]

Case in which the Parotid Gland was Extirpated. By C. Widmar, Esq., Surgeon to the Forces, U. C.

An elliptical incision having been made in the integuments of the most prominent point of the tumour, its removal was effected without much difficulty, and with very little loss of blood,—the facility being attributed by the author to the adoption of the method of separating the mass from the lower part upwards. The external jugular vein and external carotid artery being necessarily divided, were immediately secured by ligatures,—the latter being tied at both ends. When the removal of the mass had been entirely accomplished, the styloid process and the transverse process of the atlas, were exposed to view. The result of the operation was quite favourable, the wound being entirely healed in six weeks.[3]

[1] Intelligencer, for March 1, 1838, p. 422. [2] Lancet, Jan. 27, 1838, p. 642. [3] Ibid.

Two Cases of Tumours Pressing upon the Superior Vena Cava, causing Œdema of the Face and Superior Extremities. By John Wilson, M. D., Physician to the Middlesex Hospital, London.

In the first case here related, the compression of the vein was the consequence of an aneurism of the arteria innominata, the sac of which was found to contain a firm mass of fibrine. The vena cava superior was in contact with the sac, and communicated with it by a small opening. Portions of fibrine were found in the vein, which was, however, still pervious.

The obstruction of the vena cava, in the other instance related, arose from the pressure of a tumour of large size and anomalous structure, which completely surrounded the vein. The head of the pancreas was in this case enlarged to the diameter of four inches.[1]

BOOKS RECEIVED.

From Prof. Yandell, of the Louisville Medical Institute.—A List of the Graduates during the last Session.

From Dr. Woodward.—Fifth Annual Report of the Trustees of the State Lunatic Hospital at Worcester, Dec., 1837, 8vo, pp. 71. Boston, 1838.

From J. A. W.—A Catalogue of the Officers and Students of the Cincinnati College, in its Medical, Law, and Academical Departments, for 1837–8. Second edition; containing the catalogue of graduates in medicine and law for 1838. Published annually by the Board of Trustees. 8vo, pp. 16. Cincinnati, 1838.

Encyklopädie der gesammten Medicinischen und Chirurgischen Praxis, u. s. w. Von Georg Friedrich Most, u. s. w. Zweite stark vermehrte und verbesserte Auflage; Zehntes, elftes und zwölftes Heft, 8vo. Leipsig, 1837.

Friedrich Hildebrandts Handbuch der Anatomie des Menschen, von E. H. Weber, u. s. w. 8vo, band 4. Braunschweig, 1830, 1832.

Die Physiologie als Erfahrungswissenschaft. Von K. F. Burdach. Erster Band (Zweite Auflage). 8vo, S. 676. Leipzig, 1835. Vierter Band. 8vo, S. 495. Leipzig, 1832: und funfter Band. 8vo, S. 730. Leipzig, 1835.

From an Unknown Correspondent.—The Lexington Intelligencer, for March 20th, 1838; containing a complimentary correspondence between Professor Mitchell and sundry graduates of Transylvania.

From Prof. Geddings, the Dean.—Catalogue of the Students attending Lectures in the Medical College of the state of South Carolina. Session 1837-38. 8vo, pp. 8. Charleston, 1838.

From the Publishers [?].—Lectures on Lithotomy, delivered at the New York Hospital, Dec., 1837. By Alex. H. Stevens, M. D., Surgeon of the New York Hospital, and Emeritus Professor of Clinical Surgery. 8vo, pp. 93. (Five lithographs). New York, 1838.

On the Temperature of Insects, and its connection with the functions of respiration and circulation of invertebrated animals. By Geo. Newport, Esq., Member of the Royal College of Surgeons, &c., (from the Philosophical Transactions, p. 2, for 1837.) 4to, pp. 338. London, 1837.

On the Nature and Treatment of Diseases of the Heart; with some new views of the physiology of the circulation. By James Wardrop, M. D., Surgeon to his late majesty, George IV., &c. 8vo, pp. 120, and four plates. London, 1837.

The Teeth a Test of Age, considered with reference to the factory children. Addressed to the members of both houses of parliament. By Edwin Saunders, Fellow of the Medico-Botanical Society, &c. 8vo, pp. 76. London, 1837.

[1] Lancet, Jan. 27, 1838, p. 642.